REMARKS

At the outset, Applicant thanks the Examiner for the thorough review and consideration of the pending application. The Office Action dated August 9, 2004 has been received and its contents carefully reviewed.

Claim 11 is currently amended. Accordingly, claims 1-7, 10-17, 20, and 21 are currently pending. Reexamination and reconsideration of the pending claims is respectfully requested.

In the Office Action of August 9, 2004, the Examiner rejected claims 1, 10, 11, and 20 under 35 U.S.C. §103(a) as being unpatentable over Wessells et al. (U.S. Patent No. 3,661,660) in view of Barbee et al. (U.S. Patent No. 5,456,788); rejected claims 2-4, 6, 7, and 14-17, under 35 U.S.C. § 103(a) as being unpatentable over Wessells et al. in view of Barbee et al. and further in view of Schnegg et al. (U.S. Patent No. 4,971,654); and rejected claims 5, 12, 13, and 21 under 35 U.S.C. § 103(a) as being unpatentable over Wessells et al. in view of Barbee et al. and further in view of Kanda (U.S. Patent No. 4,338,157).

The rejection of claims 1, 10, 11, and 20 under 35 U.S.C. §103(a) as being unpatentable over Wessells et al. in view of Barbee et al. is respectfully traversed and reconsideration is respectfully requested.

Claim 1 is patentable over Wessells et al. in view of Barbee et al. in that claim 1 recites a combination of elements including, for example, "an etching bath containing an etchant... and an indicator displaying a temperature of the etching bath." Neither Wessells et al. nor Barbee et al., singly or in combination, teaches or suggests at least these features of the claimed invention. Independent claim 11, as currently presented, includes elements similar to those recited in claim 1. Accordingly, Applicant respectfully submits that claims 10, 11, and 20 are also patentable over Wessells et al. in view of Barbee et al.

In rejecting claims 1 and 11, the Examiner acknowledges that Wessells et al. fails to teach "an indicator displaying a temperature of the etching bath." Attempting to cure the deficiency of Wessells et al., the Examiner cites Barbee et al. as teaching "an apparatus for real-time in-situ monitoring of a chemical etching process using a control means 34 that comprises a

computer." The Examiner further cites Figure 1 of Barbee et al. as illustrating "that the computer further comprises a monitor (indicator) that is obviously capable of displaying a temperature of the etching bath." Concluding, the Examiner asserts it would have been obvious to modify the apparatus of Wessells et al. to incorporate the computer of Barbee et al. to "[provide] in-situ monitoring of a chemical etching." Applicant respectfully disagrees.

At column 6, lines 28-46, Barbee et al. teaches wherein:

> "Monitoring means 30 can comprise any suitable commercially available impedance analyzer. Monitoring means 30 is connected via signal lines 32 to control means 34. Control means 34 comprises a computer or programmable controller for providing feedback control to initiate, control, and terminate an etching operation. For instance, control means 34 is connected to pump 114 via signal line 35 for suitably controlling the operation of pump 114 to flow etchant 111 to spray head 116 or not to flow the etchant. Impedance analyzers, computers, and programmable controllers are well known in the art.
>
> In operation, the present invention provides a realtime method and apparatus for monitoring a prescribed etching characteristic, such as, etch rate or etch end point of an etching process. Etch end point is used herein to refer to the point in time when a desired film layer or portion thereof is completely removed. Monitoring of the prescribed etching characteristic is effected by electrically sensing, in-situ, changes in an electrical [characteristic] between the two sensors 24_a and 24_b... such as, the impedance or an element or elements of impedance (e.g., reactance and/or resistance)."

As shown above, the monitoring means 30 of Barbee et al. is capable of analyzing impedance or elements of impedance (e.g., reactance and/or resistance). Barbee et al., however, is silent as to whether the monitoring means 30 of Barbee et al., however, is capable of displaying or analyzing a temperature of the etching bath. Moreover, Barbee et al. is completely silent as to whether the control means 34 is capable of displaying a temperature of the etching bath. For at least these reasons, Applicant respectfully submits Barbee et al. fails to cure the deficiency of Wessells et al. and, consequently, requests the present rejection under 35 U.S.C. § 103(a) be withdrawn.

The rejection of claims 2-4, 6, 7, and 14-17, under 35 U.S.C. § 103(a) as being unpatentable over Wessells et al. in view of Barbee et al. and further in view of Schnegg et al. is respectfully traversed and reconsideration is respectfully requested.

Claims 2-4, 6, 7, and 14-17 variously depend from claims 1 and 11, which as discussed above, are patentable over Wessells et al. in view of Barbee et al. Schnegg et al. is asserted by the Examiner as disclosing features recited by dependent claims 2-4, 6, 7, and 14-17. Without reaching the merits of this assertion, Applicants respectfully submit that Schnegg et al. fails to cure the above-cited deficiencies of Wessells et al. in view of Barbee et al. as applied to independent claims 1 and 11 above. Therefore, Applicants respectfully submit that claims 2-4, 6, 7, and 14-17, which variously depend from claims 1 and 11, are patentable over Wessells et al. in view of Barbee et al. and further in view of Schnegg et al.

The rejection of claims 5, 12, 13, and 21 under 35 U.S.C. § 103(a) as being unpatentable over Wessells et al. in view of Barbee et al. and further in view of Kanda is respectfully traversed and reconsideration is respectfully requested.

Claims 5, 12, 13, and 21 variously depend from claims 1 and 11, which as discussed above, are patentable over Wessells et al. in view of Barbee et al. Kanda is asserted by the Examiner as disclosing features recited by dependent claims 5, 12, 13, and 21. Without reaching the merits of this assertion, Applicants respectfully submit that Kanda fails to cure the above-cited deficiencies of Wessells et al. in view of Barbee et al. as applied to independent claims 1 and 11 above. Therefore, Applicants respectfully submit that claims 5, 12, 13, and 21, which variously depend from claims 1 and 11, are patentable over Wessells et al. in view of Barbee et al. and further in view of Kanda.

Applicants believe the foregoing amendments place the application in condition for allowance and early, favorable action is respectfully solicited.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. A duplicate copy of this sheet is enclosed.

Dated: October 26, 2004

Respectfully submitted,

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